

AMENDMENTS TO THE CLAIMS

Please amend original claims 1, 3, 10, 21, 23 and 30 as indicated below. In accordance with 37 C.F.R. § 1.121, a claim listing including the status and text of all claims as currently presented appears below. In making such amendments, no new matter is entered.

1. (Currently Amended) An electrochemical energy storage device, comprising:
a plurality of cells in series, said plurality of cells being electrically connected via
a plurality of bi-polar current collectors and wherein said plurality of cells, and said
plurality of bi-polar current collectors and at least one terminal current collector are
stacked to form a[[n]] stacked assembly, said at least one terminal current collector
extending laterally from said stacked assembly and providing a first external
electrical contact; and
a pre-formed metal sheet outer casing electrically connected to said stacked
assembly and serving as a[[n]] second external electrical contact.

2. (Original) An electrochemical energy storage device as in claim 1, wherein
said plurality of cells comprise at least one of a double-layer capacitor, a pseudo-
capacitor, a battery or a combination thereof.

3. (Currently Amended) An electrochemical energy storage device as in claim
1, comprising:

a plurality of cells in series, said plurality of cells being electrically connected
via a plurality of bi-polar current collectors and wherein said plurality of cells and
said plurality of bi-polar current collectors are stacked to form an assembly; and
a pre-formed metal sheet outer casing electrically connected to said assembly
and serving as an external electrical contact;

wherein said pre-formed metal sheet outer casing comprises two shells, each shell
including side portions opposing each other to form an open-ended outer covering for
said assembly, and wherein said side portions overlap each other and are joined together.

4. (Original) An electrochemical energy storage device as in claim 3, wherein
said shells are U-shaped and form a box-shaped outer casing.

5. (Original) An electrochemical energy storage device as in claim 3, wherein said outer casing is joined at each of said overlapping side portions by welding.

6. (Original) An electrochemical energy storage device as in claim 3, wherein said pre-formed metal sheet is stainless steel.

7. (Original) An electrochemical energy storage device as in claim 6, wherein said outer casing is cleaned of any oxidation products and coated with a highly conductive metal.

8. (Original) An electrochemical energy storage device as in claim 7, wherein said highly conductive metal is gold.

9. (Original) An electrochemical energy storage device as in claim 3, wherein said outer casing is partially bowed to impart a spring loading thereto.

10. (Currently Amended) An electrochemical energy storage device ~~as in claim 2, comprising:~~

a plurality of cells in series, said plurality of cells being electrically connected via a plurality of bi-polar current collectors and wherein said plurality of cells and said plurality of bi-polar current collectors are stacked to form an assembly; and
a pre-formed metal sheet outer casing electrically connected to said assembly and serving as an external electrical contact;

wherein said pre-formed metal sheet outer casing is a single sheet folded at least once approximate its midpoint and at least once at each end to form side portions, and wherein said side portions oppose each other to form an open-ended outer covering for said assembly, and wherein said side portions overlap each other and are joined together.

11. (Original) An electrochemical energy storage device as in claim 10, wherein said outer casing is joined at each of said overlapping side portions by welding.

12. (Original) An electrochemical energy storage device as in claim 10, wherein said pre-formed metal sheet is stainless steel.

13. (Original) An electrochemical energy storage device as in claim 12, wherein said outer casing is cleaned of any oxidation products and coated with a highly conductive metal.

14. (Original) An electrochemical energy storage device as in claim 13, wherein said highly conductive metal is gold.

15. (Original) An electrochemical energy storage device as in claim 10, wherein said outer casing is partially bowed to impart a spring loading thereto.

16. (Original) An electrochemical energy storage device as in claim 2, wherein said pre-formed metal sheet outer casing is a tube.

17. (Original) An electrochemical energy storage device as in claim 16, wherein said pre-formed metal sheet is stainless steel.

18. (Original) An electrochemical energy storage device as in claim 17, wherein said outer casing is cleaned of any oxidation products and coated with a highly conductive metal.

19. (Original) An electrochemical energy storage device as in claim 18, wherein said highly conductive metal is gold.

20. (Original) An electrochemical energy storage device as in claim 16, wherein said outer casing is partially bowed to impart a spring loading thereto.

21. (Currently Amended) A method of forming an electrochemical energy storage device, comprising the steps of:

providing a plurality of cells ~~in-series, said plurality of cells being electrically connected via~~ and a plurality of bi-polar current collectors ~~and,~~ wherein said plurality of ~~cells~~ current collectors includes at least one bi-polar current collector and at least one terminal current collector;

stacking said plurality of cells and said plurality of bi-polar current collectors connected ~~cells~~ to form a[[n]] stacked assembly, wherein said at least one bi-polar current collector connects adjacent of said plurality of cells and wherein said at least one terminal current collector extends laterally from said stacked assembly and provides a first external electrical contact; and

providing a pre-formed metal sheet outer casing for said assembly and electrically connected to said stacked assembly, and wherein said outer casing serves as a[[n]] second external electrical contact.

22. (Original) A method of forming an electrochemical energy storage device as in claim 21, wherein said plurality of cells comprise at least one of a double-layer capacitor, a pseudo-capacitor, a battery or a combination thereof.

23. (Currently Amended) A method of forming an electrochemical energy

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storage device ~~as in claim 22~~, comprising:

providing a plurality of cells in series, said plurality of cells being electrically connected via a plurality of current collectors;

stacking said plurality of current collector connected cells to form an assembly; and

providing a pre-formed metal sheet outer casing for said assembly and electrically connected to said assembly, and wherein said outer casing serves as an external electrical contact;

wherein said pre-formed metal sheet outer casing comprises two shells, each shell including side portions opposing each other to form an open-ended outer covering for said assembly, and wherein said side portions overlap each other and are joined together.

24. (Original) A method of forming an electrochemical energy storage device as in claim 23, wherein said shells are U-shaped and form a box-shaped outer casing.

25. (Original) A method of forming an electrochemical energy storage device as in claim 23, wherein said outer casing is joined at each of said overlapping side portions by welding.

26. (Original) A method of forming an electrochemical energy storage device as in claim 23, wherein said pre-formed metal sheet is stainless steel.

27. (Original) A method of forming an electrochemical energy storage device as in claim 26, wherein said outer casing is cleaned of any oxidation products and coated with a highly conductive metal.

28. (Original) A method of forming an electrochemical energy storage device as in claim 27, wherein said highly conductive metal is gold.

29. (Original) A method of forming an electrochemical energy storage device as in claim 23, wherein said outer casing is partially bowed to impart a spring loading thereto.

30. (Currently Amended) A method of forming an electrochemical energy storage device ~~as in claim 21~~, comprising:

providing a plurality of cells in series, said plurality of cells being electrically connected via a plurality of current collectors;

stacking said plurality of current collector connected cells to form an assembly; and

providing a pre-formed metal sheet outer casing for said assembly and electrically connected to said assembly, and wherein said outer casing serves as an external electrical contact;

wherein said pre-formed metal sheet outer casing is a single sheet folded at least once approximate its midpoint and at least once at each end to form side portions, and wherein said side portions oppose each other to form an open-ended outer covering for said assembly, and wherein said side portions overlap each other and are joined together.

31. (Original) A method of forming an electrochemical energy storage device as in claim 30, wherein said outer casing is joined at each of said overlapping side portions by welding.

32. (Original) A method of forming an electrochemical energy storage device as in claim 30, wherein said pre-formed metal sheet is stainless steel.

33. (Original) A method of forming an electrochemical energy storage device as in claim 32, wherein said outer casing is cleaned of any oxidation products and coated with a highly conductive metal.

34. (Original) A method of forming an electrochemical energy storage device as in claim 33, wherein said highly conductive metal is gold.

35. (Original) A method of forming an electrochemical energy storage device as in claim 30, wherein said outer casing is partially bowed to impart a spring loading thereto.

36. (Original) A method of forming an electrochemical energy storage device as in claim 22, wherein said pre-formed metal sheet outer casing is a tube.

37. (Original) A method of forming an electrochemical energy storage device as in claim 36, wherein said pre-formed metal sheet is stainless steel.

38. (Original) A method of forming an electrochemical energy storage device as in claim 37, wherein said outer casing is cleaned of any oxidation products and coated with a highly conductive metal.

39. (Original) A method of forming an electrochemical energy storage device as in claim 38, wherein said highly conductive metal is gold.

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40. (Original) A method of forming an electrochemical energy storage device as in claim 36, wherein said outer casing is partially bowed to impart a spring loading thereto.

41-59. (Withdrawn)